

PATENT SPECIFICATION



Application Date: Nov. 23, 1927. No. 31,490/27.

303.620

Complete Left: Aug. 16, 1928.

Complete Accepted: Jan. 10, 1929.

PROVISIONAL SPECIFICATION.

Improvements in Supporting Means for Electric Lamp Shades.

I, ERNEST LENNOX DUNAND, a British subject, of 23, Newman Street, Oxford Street, London, W. 1, do hereby declare the nature of this invention to be as follows:—

This invention relates to supporting means for electric lamp shades and concerns devices in the form of a helical compression spring adapted to be engaged on and surround an electric lamp holder and to seat at its lower end on a shoulder or the usual cap of a lamp, the shade seating upon the upper end of the spring and being retained by it in a position above the lamp.

The present invention seeks to construct a device of the foregoing kind in a manner such that it may be used in connection with electric lamps of various patterns and shapes and will seat correctly and snugly at its lower end on the cap of the lamp or on a shoulder of the glass body thereof.

In carrying out the present invention the lower end of the spring is constructed with a number of resilient, pliable or springy jaws or equivalents capable of being opened out or separated apart to vary the size of the mouth formed by the combination of them. Conveniently the said jaws each may be formed of wire and include an arcuate portion adapted to lie in circumferential fashion around the lamp cap or body.

A practical embodiment of the invention comprises a helical wire compression spring from the bottom coil of which extend a pair of jaws each consisting of a pair of spaced-apart leg portions which extend away from the bottom of the spring parallel with a continuation of its axis, the said legs forming integral parts of the jaw, which latter is a one-piece member and includes also an arcuate bridge portion connecting said legs at their

extremities, the said arcuate portion lying approximately on a circumference about the continued axis of the spring. The said jaw consists of a length of wire bent to form the said bridge portion and the two legs. Preferably the said two arcuate portions of the respective jaws, considered together, form approximately a complete circle.

If desired more than two such jaws may be provided, in which case their bridge portions form smaller arcs of the circle which they constitute when considered collectively.

The said jaws may be separate from the spring itself and permanently attached thereto at their leg extremities by soldering or in other suitable manner; or alternatively the spring itself may be so formed by suitably bending it as to constitute one or more of the said jaws.

If desired the device constructed as above described may be made as a permanent part of the shade in which case the spring at its upper end is permanently attached to or formed integrally with said shade, and depends downwardly in the centre of said shade from the usual lamp-holder-engaging aperture. This particularly applies in connection with a shade having a wire frame or other shade which usually includes a wire ring for engagement on the lamp holder, and in applying the invention to such a shade the spring may be permanently attached at its upper end to such ring or the spring may constitute said ring and be formed integral with the shade frame by suitably bending the wire thereof.

Dated this 23th day of November, 1927.

JOHN H. JACK,

Patent Agent,

45, Bedford Row, London, W.C. 1,
Agent for the Applicant.

COMPLETE SPECIFICATION.

Improvements in Supporting Means for Electric Lamp Shades.

I, ERNEST LENNOX DUNAND, a British subject, of 23, Newman Street, Oxford Street, London, W. 1, do hereby declare the nature of this invention and in what
[Price 1/-]

manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to supporting means for electric lamp shades and concerns known devices in the form of a helical compression spring adapted to be engaged on and surround an electric lamp holder and to seat at its lower end on a shoulder or the usual cap of a lamp, the lamp, through the medium of the spring, serving to retain the shade in place.

The present invention has in view to incorporate a device of the foregoing kind as a permanent part of a wire shade frame so that a purchaser of a shade made therewith does not require to purchase separately such a shade-securing device, a further advantage being that the fitting of the shade is simplified, particularly in the case of a narrow shade within which there is insufficient room to insert the hand comfortably when fitting the shade, since the spring cannot fall whilst the shade is being held.

The invention accordingly provides an electric lamp-shade frame comprising in combination a wire frame which includes an annular wire coil at its neck, and a helical spring forming a unitary part of the shade frame, depending down within said frame from said wire neck-coil or from a member attached thereto, the said spring being of parallel form so as to closely fit the lamp-holder and lamp cap throughout its entire length.

The parallel formation of the spring and consequent close fitting thereof against the lamp-holder and lamp cap, throughout its entire or almost entire length, eliminates any possibility of the shade being moved laterally when in position.

In the manufacture of the shade frame, according to the different embodiments of the invention, a spring which is separate from the frame has its uppermost convolution permanently attached to the neck-coil of the frame or to an auxiliary base ring permanently secured to said neck-coil, whilst in a modification the spring is constituted by an integral extension portion of the wire or other material of the shade frame. If desired the free end of the spring is constructed with resilient or springy jaws capable of being opened apart to vary the size of a mouth formed by the combination of them, so that no matter what shape or pattern of lamp is used in conjunction with the shade, the spring of the latter will seat correctly and snugly on the cap of the lamp or on the shoulder of the glass body thereof.

The invention will be readily understood by referring to the accompanying

drawing illustrating various embodiments of said invention, and wherein:—

Figure 1 is a part sectional view of a lamp-shade frame in accordance with the invention having a permanently attached retaining spring,

Figure 2 is a fragmentary perspective view illustrating a mode of forming the retaining spring from the continuation of the wire of the frame, and

Figure 3 is a fragmentary view of the lower end of the retaining spring, showing jaws applied thereto.

Referring to Figure 1, there is permanently secured to the upper neck-coil 1 of a wire shade frame 2, an inner ring 3, lug portions 4 of which are bent over the neck-coil 1 and soldered or likewise affixed thereto, and around an annular part of said inner ring 3 lies the uppermost convolution or coil of a helical compression spring 5, which is soldered or likewise permanently affixed thereto.

In a modification the upper coil of the spring 5 suitably shaped and formed may be affixed directly by soldering or likewise to the neck-coil 1 of the shade frame.

Figure 2 illustrates how the spring 5 may be formed as a spirally-formed continuation of the upper frame neck-coil 1.

The spring 5 is of a length such that when the ring 3 after passing up over the lamp-holder, is properly seating in place, the lower end of said spring, which latter also surrounds the lamp-holder, terminates some distance below the lower end of said lamp-holder when said spring is free, but when the lamp is being inserted into the lamp-holder it contacts with the spring and compresses same, the lamp, by its engagement with the lamp-holder retaining the shade firmly in position.

In order to ensure of the spring 5 seating correctly on the end caps or bodies of lamps of different makes and shapes, the lower end thereof may be furnished with two or more jaws adapted to be opened apart to vary the size of a mouth formed by the combination of them. Such an arrangement is shown in Figure 3, wherein there are shown a pair of jaws 6, the leg portions 7 of each of which are affixed to the lowermost coil of the spring 5. Said leg portions 7 in the case of each jaw are connected by an arcuate bridge portion 8 integral with said legs and lying approximately on a circumference about the axis of the spring. Said jaws may be formed of wire bent as shown, the two bridge portions 8 together forming approximately a complete circle when said jaws are in innermost positions, but said jaws may be opened apart as required according to the shape of the lamp on which they are to seat,

In a modification the two jaws may be formed by an integral extension of the wire of the spring 5, in which case said extension portion is bent so as to form first one jaw and then the other.

If desired more than two jaws may be provided, in which case their bridge portions form smaller arcs of the circle which they constitute when considered collectively.

I am aware that a light diffusing device already proposed for fitment within a vehicle headlamp so as to surround the electric light bulb comprised a translucent cup secured at its neck to a metal ring from which latter there extended, into the translucent cup, a conical helical spring adapted to bear against the body of the bulb in order to resiliently press an associated part of the cup against a reflector.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. An electric lamp shade frame comprising in combination a wire frame which includes an annular wire coil at its neck,

and a helical spring forming a unitary part of the shade frame, depending down within said frame from said wire neck-coil or from a member attached thereto, the said spring being of parallel form so as to closely fit the lamp-holder and lamp cap throughout its entire or almost entire length.

2. An electric lamp shade frame as claimed in Claim 1, wherein the said spring is constituted by an integral extension portion of the material of the shade frame.

3. An electric lamp shade frame as claimed in Claim 1 or 2, wherein the free end of the spring is constructed with resilient or springy jaws capable of being opened apart to vary the size of a mouth formed by the combination of them.

4. An electric lamp shade frame substantially as herein described with reference to any of the figures of the accompanying drawing.

Dated this 15th day of August, 1928.

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[This Drawing is a reproduction of the Original on a reduced scale.]

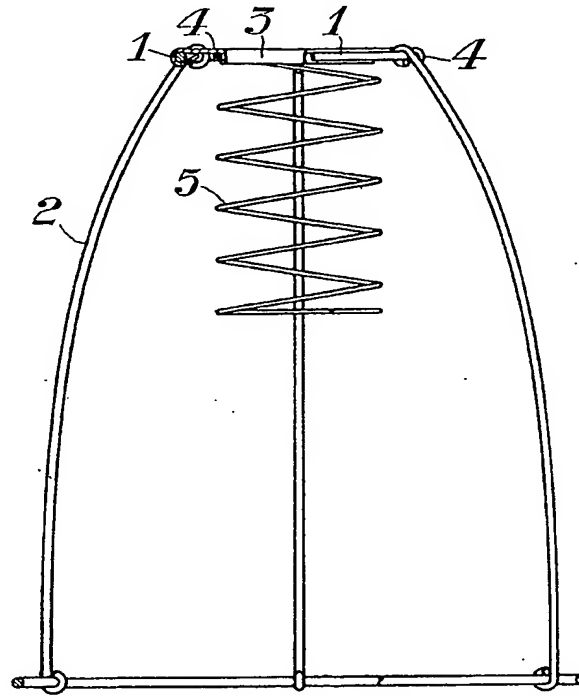


FIG. 1.

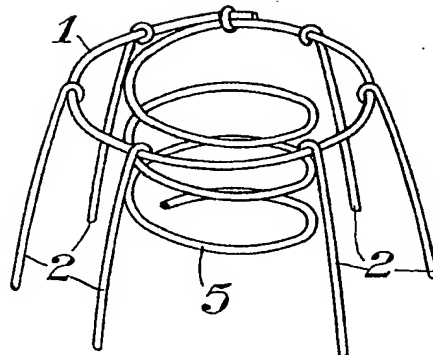


FIG. 2.

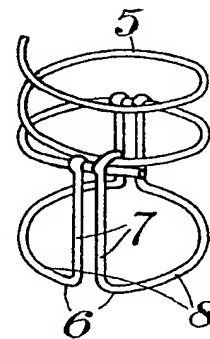


FIG. 3.